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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,485	11/14/2003	Richard A. Proulx	086333.00004	9209

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HOLLAND & KNIGHT LLP
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EXAMINER

EASHOO, MARK

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 12/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/713,485

Applicant(s)

PROULX ET AL.

Examiner

Mark Eashoo, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Proulx (US Pat. 5,807,462) in view of Groff et al. (US Pat. 4,288,463) and Mize et al. (US Pat. 4,186,239).

Proulx teaches the basic claimed process of forming a cutting line, comprising: extruding a pair of molten filaments (2:1-47 and Figs. 1, 2, 5, 6); directing the molten filaments into a quench bath (2:1-47 and Figs. 1, 2, 5, 6); pulling the molten filaments through the quench bath to initiate crystallization and bond/weld the filaments together (2:1-47 and Figs. 1, 2, 5, 6); concurrently stretching and heating the bonded/joined filaments (2:1-47 and Figs. 1, 2, 5, 6); heating the strands into a relaxed disposition (2:1-47 and Figs. 1, 2, 5, 6); and extruding a plurality of pairs of molten filaments (Figs. 1, 5, 8 and 7a-d).

Proulx does not teach twisting filaments by rotating a die about a central longitudinal axis during extrusion at a specific rotational speed. Nonetheless, Groff et al. teaches twisting filaments by rotating a die about a central longitudinal axis during extrusion (Fig. 1). Groff et al. further teaches that plurality of dies that extrude a pair of filaments are synchronously rotated (Fig. 1). Official Notice is given that the rotation rate of a die is a known variable and optimizable process parameter. At the time of invention a person of ordinary skill in the art would have found it obvious to have formed twisted filaments by rotating a die about a central longitudinal axis during extrusion, as taught by Groff et al., in the process of Proulx, and would have been motivated to form such product since Mize et al. suggests that twisting multi-lobe cutting filaments reduces fibrillation (6:5-15 and Fig. 11) and would have rotated the die at the appropriate speed, as determined through routine experimentation and optimization, in order to form a desired degree of twist per linear foot.

Proulx does not teach an oblately shaped die hole. Nonetheless, Mize et al. teaches an oblately shaped filament (Fig. 3). It is implicit that the die hole that formed the filament of Mize et al. was oblately shaped. Mize et al. further substantially teaches rotating a filament of any desired shape about a central longitudinal axis (Fig. 11). At the time of invention a person of ordinary skill in the art would have found it obvious to have used an oblately shaped die hole, as taught by Mize et al., in the process of Proulx, and would have been motivated to do so since Mize et al. suggests that such shaped filament is desired in the cutting line art.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached form PTO-892.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29

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USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-27 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-14 of U.S. Patent No. 5,814,176, to Proulx in view of Groff et al. (US Pat. 4,288,463) and Mize et al. (US Pat. 4,186,239).

Claims 1-14 of Proulx substantially teaches the basic claimed process of forming a cutting line, comprising: extruding a pair of molten filaments; directing the molten filaments into a quench bath; pulling the molten filaments through the quench bath to initiate crystallization and bond/weld the filaments together; concurrently stretching and heating the bonded/joined filaments; heating the strands into a relaxed disposition; and extruding a plurality of pairs of molten filaments.

Proulx does not teach twisting filaments by rotating a die about a central longitudinal axis during extrusion at a specific rotational speed. Nonetheless, Groff et al. teaches twisting filaments by rotating a die about a central longitudinal axis during extrusion (Fig. 1). Groff et al. further teaches that plurality of dies that extrude a pair of filaments are synchronously rotated (Fig. 1). Official Notice is given that the rotation rate of a die is a known variable and optimizable process parameter. At the time of invention a person of ordinary skill in the art would have found it obvious to have formed twisted filaments by rotating a die about a central longitudinal axis during extrusion, as taught by Groff et al., in the process of Proulx, and would have been motivated to form such product since Mize et al. suggests that twisting multi-lobe cutting filaments reduces fibrillation (6:5-15 and Fig. 11) and would have rotated the die at the appropriate speed, as determined through routine experimentation and optimization, in order to form a desired degree of twist per linear foot.

Proulx does not teach an oblatelately shaped die hole. Nonetheless, Mize et al. teaches an oblatelately shaped filament (Fig. 3). It is implicit that the die hole that formed the filament of Mize et al. was oblatelately shaped. Mize et al. further substantially teaches rotating a filament of any desired shape about a central longitudinal axis (Fig. 11). At the time of invention a person of ordinary skill in the art would have found it obvious to have used an oblatelately shaped die hole, as taught by Mize et al., in the process of Proulx, and would have been motivated to do so since Mize et al. suggests that such shaped filament is desired in the cutting line art.

Response to Arguments

Applicant's arguments filed 22-SEP-2005 have been fully considered but they are not persuasive, because:

1.) Applicant's declaration is by a party of interest and has been given appropriate consideration and is not persuasive. It is noted that applicant's arguments therein, are substantially directed to intended use of the product or a characteristics of the final product and not substantially to the instantly claimed process steps. Applicant also

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presents arguments directed to the material, nylon, of the product but applicant fails to note that instant claims are not limited to nylon.

2.) In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

3.) Applicant's arguments are substantially directed to intended use of the product or a characteristics of the final product, (ie. noise attenuation) and not substantially to the instantly claimed process steps. Furthermore, it is noted that the art rejection, meets all the claimed process steps and therefore would inherently form a product having the same characteristics of the product formed from the instantly claimed process.

Applicant also presents arguments directed to the material, nylon, of the product but applicant fails to note that instant claims are not limited to nylon.

4.) In response to applicant's argument that Groff is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Groff is reasonably pertinent to the particular problem with which the applicant was concerned, namely forming a twisted extrudate.

5.) In response to applicant's argument that Mize is not concerned with noise attenuation, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

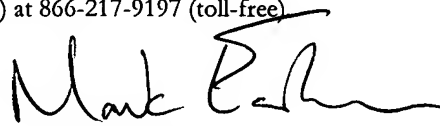
Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Eashoo, Ph.D. whose telephone number is (571) 272-1197. The examiner can normally be reached on 7am-3pm EST, Monday - Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaanni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)



Mark Eashoo, Ph.D.
Primary Examiner
Art Unit 1732

04/Dec/05

04-Dec-05
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